ever since autumn entomologists all over Europe had been hunting for Calosoma to send to America. Up to the present time, however, not a single specimen had been found.

Doctor Hopkins said that this effort to introduce parasites of the gypy moth and brown-tail moth was a most important one, and he thought it would be well to endeavor to introduce the parasites of other defoliating caterpillars also.

—Mr. Banks then presented the following paper:

NOTES ON PTERONARCYS, A GENUS OF PERLIDÆ.

By Nathan Banks.

The genus Pteronarcys comprises the largest of our Perlidæ. Its members have long attracted attention, since the adult insects retain, in a more or less perfect condition, the gills which served them as organs of respiration during their early stages in the water. A similar condition, however, is now known to exist in various other stone-flies. All but one of the six or seven described species of this genus occur in the United States, the single exception being from Siberia. The best characters for the separation of the species lie in the structure of the ninth ventral segment in the male, and of the eighth ventral segment in the female. Lately I had an opportunity of examining the collection of the late Doctor Hagen in the Museum of Comparative Zoölogy, Cambridge, Mass., and now, in going over my own collection, I find that I have a new species, the most distinct one in the genus. It may be described as follows:

Pteronarcys spinosa, n. sp.

Black, scars of head reddish, a narrow reddish stripe on middle of pronotum, ventral segments of abdomen margined with yellowish. Wings not very long; venation dark brown, rather dense; a dark cloud over the first cross-vein between the radial sector and the radius, and extending up into the costal area; another dark cloud near middle of wing and basad of the first one; hind wings with the costal spot, but without the interior one; an elongate black spot near basal costal part of forewings. Female with the 8th ventral segment evenly rounded, and with two long, divaricate, spine-like processes from the middle (fig. 1). Male with the 9th ventral segment broadly truncate at tip, not

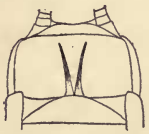

Fig. 1.—*Pteronarcys spinosa:* Eighth ventral plate of female.

covering the 10th, with a scar each side, and a middle area very distinctly separated from the sides by nearly parallel carinæ.

Length to tip of wings, ♂, 34 mm., ♀, 39 mm.

One pair from Oregon, from a Mr. Warren.

To show the position of this species in the genus, I have tabulated our forms for both sexes, as follows:

MALES.

1. Ninth ventral segment elongate, tapering to the notched tip, and covering the 10th segment, its surface minutely transversely striate..4
   Ninth ventral segment short, broadly truncate at tip, not covering the 10th; rugose, but not finely striate.....2
2. Middle area of 9th ventral segment with nearly parallel sides.*spinosa*
   Middle area of 9th ventral segment much broader at base than at tip ..3
3. The scar or concavity on sides of 9th segment not reaching the base, *californica*
   The scar extending to base.....*proteus*
4. Notch at tip of 9th segment small.....*nobilis*
   Notch at tip deeper and broader.....*regalis* and *pictetii*

FEMALES.

1. Eighth ventral segment without median processes or teeth.....4
   Eighth ventral segment with two projections from the middle part..2
2. From middle of 8th ventral segment arise two long, divaricate processes, fully four or five times as long as broad at base.....*spinosa*
   Two short teeth, barely longer than broad at base on the posterior margin of the 8th ventral segment.....3
3. The two teeth but little more than their diameter apart....*californica*
   The two teeth plainly more than diameter apart.....*pictetii*
4. The 8th ventral segment triangular.....*proteus*
   The 8th ventral segment truncate at tip.....*regalis* and *nobilis*

—Mr. Heidemann exhibited specimens of a new species of Corythuca and of other species of the genus for comparison, and presented the following paper: